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CHOLERA AND COLONIALISM IN BRITISH INDIA*

I

Cholera, it has been said, was the “classic epidemic disease of the nineteenth century”.¹ Demographically far less destructive than the Black Death with which it was frequently compared, cholera had, none the less, a profound effect on society on both sides of the Atlantic. The epidemics of the 1830s, 1840s and 1860s have been identified as causing popular unrest, accentuating social conflict, and providing a catalyst for municipal reform and the development of public health.² Since the bulk of cholera victims came from the lower classes, the epidemics have also been seen as affording a “unique opportunity to penetrate class structure” and to uncover the “social attitudes and living conditions of a broad section of the population”.³

Ironically, a disease so extensively discussed in connection with nineteenth-century European and American history has received scant attention from historians of India, even though the sub-continent was the source of the cholera pandemics and itself suffered millions of deaths from the disease during the nineteenth and early twentieth centuries. This silence might seem to indicate that because cholera was native to India it generated none of the strong reactions that marked its appearance in the west and that, whatever its demographic impact, it was of marginal political and social significance. In fact, the first epidemics of the nineteenth century were seen in India, too, as the eruptions of a new and terrifying disease. But, unlike in the west, where the visitations of cholera illuminated the

* An earlier version of this paper was presented at the Universities of Kent, Delhi and Calcutta and at the Peasants Seminar in London. I am indebted to all those who commented on the earlier draft, especially Gautam Bhadra, Sumit and Tanika Sarkar and David Hardiman. I am grateful, too, to the Nuffield Foundation for funding the research on which this essay is based.

¹ C. E. Rosenberg, *The Cholera Years: The United States in 1832, 1849 and 1866* (Chicago, 1962), p. 1.

² L. Chevalier (ed.), *Le choléra: la première épidémie du XIX^e siècle* (La Roche-sur-Yon, 1958); R. E. McGrew, *Russia and the Cholera, 1823-1832* (Madison, 1965); R. J. Morris, *Cholera, 1832: The Social Response to an Epidemic* (London, 1976); M. Durey, *The Return of the Plague: British Society and the Cholera, 1831-2* (Dublin, 1979).

³ R. E. McGrew, “The First Cholera Epidemic and Social History”, *Bull. Hist. Medicine*, xxxiv (1960), p. 64.

state of society at only a few brief points in time, the disease in India described a continuing and shifting relationship between two different, often antagonistic value-systems, the one Indian, the other European. Cholera provides a convenient point of entry for the study of the mentality as well as the material conditions of India's subordinate classes, while also illustrating the interventionist capacity of the colonial state and the political constraints that acted upon it.

Three factors shaped Indian attitudes and responses to cholera. First, it is important to recognize the "individuality of disease entities".⁴ The seemingly arbitrary way in which the disease chose its victims, the rapidity of its advance, the high fatality among those attacked and the violent nature of their death all contributed to making cholera in India, as in the west, a singularly frightening disease, and one amenable to few customary controls. Like all epidemics, cholera threatened entire communities, not just isolated individuals, and so called for collective, not merely individual or familial responses. But each epidemic has its own characteristics, its own distinctive relationship with human ecology. Hence the reactions cholera epidemics provoked and the signification attached to them were not necessarily identical with the responses to other epidemic diseases. Secondly, the cultural context in which the epidemics occurred profoundly affected the manner of their reception. However new and alarming the disease, there none the less existed a cultural framework within which Indians sought to comprehend the catastrophe and to survive or come to terms with it. Some of these responses bear comparison with the west; others bore the distinctive imprint of popular Hinduism. Finally, much depended upon the political context of the epidemics and the nature of state policies towards a specific disease, for it was often against the latter as much as against the epidemic itself that the populace reacted. In a society recently brought under colonial control and retaining a high degree of cultural autonomy from its rulers, initial attitudes to cholera were necessarily affected by the wide social, religious and political gulf between Indians and the British, rather than by the kinds of class polarities and perceptions that informed European and American responses to the disease. In this respect the parallels lie less with nineteenth-century Europe and America than with the doomed Aztec and Inca empires of the sixteenth century: there the "trauma of conquest" was intensified by the concurrent invasion of smallpox,

⁴ C. E. Rosenberg, "Cholera in Nineteenth-Century Europe: A Tool for Social and Economic Analysis", *Comp. Studies in Society and Hist.*, viii (1966), p. 453.

measles, and other European-transmitted diseases, against which indigenes had neither immunity nor defence, and whose onslaughts hastened their demoralization and defeat.⁵ A similar identification of cholera with conquest was made in early nineteenth-century India, but there the signification of the disease was complicated by the fact that it was of indigenous, not foreign origin, and threatened European as well as Indian lives.

II

Although the main concern of this essay is with the contrasting signification and changing political context of cholera in India, it is first necessary to establish the general pattern of cholera incidence during the colonial period. As the collection of vital statistics in India did not begin in earnest until the mid-1860s, it is impossible to arrive at an accurate figure for the number of deaths caused by the disease. From such statistics as are available, it would appear that at least twenty-three million people died of the disease in British India between 1865 and 1947. It is likely that a further ten to fifteen million deaths occurred during the previous fifty years.

The first major epidemic of the nineteenth century, that of 1817-21, has been described as "probably the most terrible of all Indian cholera epidemics",⁶ but no reliable estimate of its mortality is available. The only attempt at an overall figure was made by the French physician Moreau de Jonnès in 1831. Although based on information from India, his calculations were inflated by the alarm which cholera was already causing in Europe. On the basis of the estimated mortality in certain areas of Bengal and among troops of the East India Company, Moreau calculated that cholera struck one-tenth of the population of British India and killed one-sixteenth. For the period 1817-31 he postulated an average annual mortality of one and a quarter million, amounting to eighteen million deaths in all.⁷ Other commentators elaborated on Moreau's figures, suggesting that for the whole of India the number of cholera deaths might have been

⁵ A. W. Crosby, *The Columbian Exchange: Biological and Cultural Consequences of 1492* (Westport, 1972); N. Wachtel, *The Vision of the Vanquished: The Spanish Conquest of Peru through Indian Eyes, 1530-1570* (New York, 1977).

⁶ L. Rogers, *The Incidence and Spread of Cholera in India* (Calcutta, 1928), p. 8.

⁷ A. Moreau de Jonnès, *Rapport au conseil supérieur de santé sur le choléra-morbus pestilentiel* (Paris, 1831), pp. 76, 84.

as high as forty million in only fourteen years.⁸ No wonder Europe feared the return of the Black Death.

The mortality in 1817-21 was undoubtedly great, but there is no evidence to suggest that it was as uniform and as persistent as Moreau assumed. In some respects the 1817-21 epidemic was exceptional. The thirty years that had lapsed since the last recorded epidemics in the 1780s left the population exceptionally vulnerable to a fresh outbreak. Like the El Tor cholera which reached India in 1964 and rapidly supplanted the existing form of the disease, the 1817 epidemic may well have been of a new and more virulent strain, enabling it to move with unprecedented speed and destructiveness from the areas of lower Bengal where it was (or became) endemic to almost every part of the sub-continent within three years. Subsequent epidemics rarely spanned more than one or two provinces at a time. The lack of immunity and the exceptional geographical range are factors that would lead one to expect abnormally high levels of mortality. On the other hand, the most severe of the later epidemics occurred in famine years, whereas famine conditions were almost entirely absent from India in 1817-21.

Bengal was certainly badly affected. Statistics collected by James Jameson in 1820 showed mortality in excess of 10,000 for several districts, including Jessore where that number were said to have perished in two months of 1817 alone. But Jameson also noted that towns and districts higher up the Ganges had suffered considerably less than those in lower Bengal.⁹ In western India, too, the epidemic appears to have been relatively mild. In the year from August 1818 there were 24,227 reported cases of cholera on Bombay island, but only 1,450 deaths (equivalent to roughly 7 per 1,000 inhabitants).¹⁰ In the Madras Presidency, Cuddapah district lost about 15,000 out of a population of nearly a million (about 14 per 1,000), while in Nellore there were only 3,000 deaths between August 1818 and September 1819, at a rate of approximately 7 deaths per 1,000 inhabitants. For the Madras districts as a whole, the mortality during the height of the epidemic appears to have been around 11-12 per

⁸ Anon., "The Asiatic Cholera", *Fraser's Mag.*, xix (1831), p. 614; A. Fabre and F. Chailan, *Histoire de choléra-morbus asiatique* (Marseilles, 1835), p. 10.

⁹ J. Jameson, *Report on the Epidemick Cholera Morbus* (Calcutta, 1820), pp. 27, 170-5.

¹⁰ India Office Records, London (hereafter I.O.R.), Bombay Public Procs., 29 Sept. 1819, secretary, Bombay Medical Board, to chief secretary, Bombay, 13 Sept. 1819.

1,000.¹¹ If this figure were applied to India as a whole, with a population at this date of about a hundred and twenty million, the total number of deaths would have been no more than one or two million. This would certainly represent a considerable loss of life, but not such as to bring about a major demographic and economic crisis. It is significant that European opinion in India was itself divided about the scale of the catastrophe. William Scot in Madras called the epidemic "one of the most formidable that has ever afflicted the human race".¹² Jameson in Bengal thought it "perhaps more destructive in its effects and more extensive in its influence, than any other recorded in the annals of this country"; but, having weighed the evidence, he concluded that the number of deaths reported "fell far short of the rate assigned to it by the voice of the public during the season of alarm".¹³ A third authority, R. H. Kennedy in Bombay, rated it low among the "afflicting . . . scourges of humanity" and thought it scarcely offered "a more distressing image of desolation to our view than what we are in the habit of beholding with philosophic calmness, and ranking among the ordinary casualties of Indian life".¹⁴

From the 1870s we are on stronger statistical ground. During the last quarter of the nineteenth century an average of 1.75 out of every 1,000 of the population of British India died of cholera each year. But this aggregate masks the enormous yearly and regional variations that were such a striking feature of the disease. In 1874, for example, cholera mortality sank to 0.16 per 1,000, and in four other years in the quarter-century was below 1 per 1,000. But in 1877, 1892 and 1906 deaths exceeded 3 per 1,000; in 1900 the total reached 797,222 (3.70 per 1,000). At the provincial and local levels, mortality could be significantly greater. In the Madras Presidency in 1877, for example, 357,430 cholera deaths were recorded (12.20 per 1,000), and in four districts where famine was also rife, 20-25 out of every 1,000 inhabitants died from the disease.¹⁵

Measured against cholera mortality in western Europe and North

¹¹ W. Scot, *Report on the Epidemic Cholera* (Madras, 1824), pp. 43, 46-7, 49; I.O.R., Madras Board of Revenue Procs., 16 Sept. 1819, collector, Salem, to Board of Revenue, 8 Sept. 1819; Madras Board of Revenue Procs., 30 Sept. 1819, collector, Cuddapah, to Board of Revenue, 20 Sept. 1819; Madras Judicial Procs., 8 Nov. 1819, magistrate, Guntur, to secretary, Judicial, 30 Sept. 1819; Madras Judicial Procs., 26 Nov. 1819, magistrate, Tirunelveli, to chief secretary, 14 Aug. 1819.

¹² Scot, *Report on the Epidemic Cholera*, p. 29.

¹³ Jameson, *Report on the Epidemic Cholera Morbus*, pp. iii, 183.

¹⁴ R. H. Kennedy, *Notes on the Epidemic Cholera* (Calcutta, 1827), pp. 84, 88.

¹⁵ Rogers, *Incidence and Spread of Cholera*, pp. 28, 37; *Annual Report of the Sanitary Commissioner for Madras, 1877* (Madras, 1878), p. lxiii.

America (though not in Russia in the 1830s and 1840s¹⁶), these figures were astronomically high. Britain suffered fewer than 150,000 deaths from cholera during the entire nineteenth century, and in 1849, the year of the severest visitation, there were only about 53,000 fatalities in England and Wales, equivalent to about 3 deaths per 1,000 of the population.¹⁷ But, by the grim standards of India's other major diseases, cholera was not an immoderate killer. Even in 1900, the worst cholera year on record, the disease was responsible for only a tenth of all deaths. Between 1896 and 1921 plague caused about ten million deaths and malaria possibly twice that number. The influenza pandemic of 1918-19 swept away twelve to fifteen million more. The total death rate, which appears to have been rising, stood by the early twentieth century at a staggering 5 per cent a year.¹⁸ But, for reasons which have never been satisfactorily explained, cholera mortality began to decline in the early decades of the present century, despite a rising population and with little evidence of improvement in the conditions of the mass of the population. Having hovered at around 4 million for each decade from 1890 to 1919, cholera mortality in British India dropped to 2.2 million in the 1920s and 1.7 million in the 1930s with a slight resurgence in the 1940s, the decade of the Bengal famine and Partition, to just over 2 million.¹⁹ I will return to the reasons for this decline later in the article.

III

European observers of the 1817-21 epidemic noted one aspect of the disease which was of particular significance for the subsequent history of cholera in India — its predilection for the poor and undernourished. Although European residents were at first greatly alarmed for their own safety,²⁰ the élite of the European community was saved by its generally healthier living conditions and superior diet and by its greater awareness of sanitation and hygiene from the worst effects of the disease. The death of Sir Thomas Munro, governor of Madras, in 1827 was one reminder that there was no absolute immunity, and

¹⁶ In Russia there were more than 250,000 cholera deaths in 1830-1 and a further one million in 1847-51: McGrew, *Russia and the Cholera*, pp. 4-5.

¹⁷ C. Creighton, *A History of Epidemics in Britain*, 2 vols. (Cambridge, 1894), ii, p. 843.

¹⁸ I. Klein, "Death in India, 1871-1921", *Jl. Asian Studies*, xxxii (1973), pp. 639, 642-3.

¹⁹ *Annual Report of the Sanitary Commissioner with the Government of India, 1899* (Calcutta, 1900), p. 131; R. Pollitzer, *Cholera* (Geneva, 1959), p. 58.

²⁰ Kennedy, *Notes on the Epidemic Cholera*, pp. v-vi.

casualties among rank-and-file British soldiers remained high until the 1870s; but it was often remarked how few other Europeans succumbed to the disease.²¹

Among the poorer classes of the Indian population it was a very different story. Although Jameson in Calcutta in 1820 could only speculate on the causes of the disease and the mode of its transmission, he was struck by its prevalence among the city's slum-dwellers, living in crowded hutments, amid stagnant pools of water, and without even elementary sanitation. By contrast, he observed, the "higher class of native, and Europeans generally, inhabiting the better raised and more airy parts of the town, suffered proportionately less than the lower ranks".²² Reports from other parts of India and during subsequent epidemics confirmed this grim partiality.²³ In India, as in nineteenth-century Europe, cholera was — as in south Asia it has remained — mainly an affliction of the lower classes. Given "the nature of the disease, its mode of communication, and especially its connection with insanitary living conditions and polluted water supplies", this was inevitable.²⁴

But to a greater degree than in Europe, cholera in India was a disease of the rural poor. The largest and most European of India's cities followed the lead of sanitary reform in Britain and this had immediate and lasting effects on urban cholera mortality. Calcutta, close to the heart of the cholera endemicity zone, suffered between 2,500 and 7,000 deaths from the disease every year from 1841 to 1865. In that year a new sewerage system was opened, followed in 1869 by a filtered water-supply. Cholera deaths dropped dramatically, and despite the city's rapid growth in the second half of the century, only exceeded 3,000 in one year (1895) between 1870 and 1900.²⁵ Similarly, in Bombay and Madras it was only during famine years, when the rural poor streamed in from the countryside, that urban

²¹ See, for example, H. Young, *Remarks on Cholera Morbus* (London, 1831), p. 63. In the cholera year of 1877 only sixty-five European civilians died of the disease in the Madras Presidency, though this still represented 4.4 per 1,000 of the province's European residents: *Annual Report of the Sanitary Commissioner for Madras, 1877*, p. lxvii.

²² Jameson, *Report on the Epidemic Cholera Morbus*, pp. 110-11.

²³ See, for example, Scot, *Report on the Epidemic Cholera*, pp. 42, 48-9, 167; *Reports on Cholera in Meerut, Rohilkund and Ajmere Divisions in the Year 1856* (Agra, 1857), pp. 5, 15, 18.

²⁴ McGrew, "First Cholera Epidemic", p. 64.

²⁵ I.O.R., India Sanitary Procs., no. 2, 1 July 1871, J. M. Cunningham, sanitary commissioner to the government of India, to secretary, government of India, 13 June 1871; Pollitzer, *Cholera*, p. 94.

mortality reached its highest levels.²⁶ But in the small towns and villages, without piped water and effective sanitation, cholera remained a constant threat.

In the countryside cholera had a dual impact. Epidemics alone could cause heavy loss of life, but this mortality was doubled, even trebled, when epidemic cholera coincided with famine. During the "Guntur famine" in the Madras Presidency in 1833, cholera helped to produce a death toll of over two millions.²⁷ The synchronization of cholera and famine was particularly devastating during the second half of the nineteenth century, a period of frequent and widespread famines. In Madras in 1866 and 1877, as in Bombay in 1877 and 1900, this lethal alliance drove cholera mortality to its highest recorded levels. The decline in famine after 1900 was thus one factor in the fall in cholera mortality in the 1920s and 1930s, just as the Bengal famine of 1943-4 contributed to its temporary recrudescence.

There was, however, no automatic correlation between cholera and famine, and it is a mistake to interpret cholera deaths as merely an index of famine mortality, as some historians have been inclined to do.²⁸ Epidemics followed seasonal and cyclical patterns of their own, though with a human tally greatly inflated by concurrent famine. In the Madras Presidency between 1869 and 1871 a cholera epidemic caused about 100,000 deaths. The epidemic cycle began again in 1875 and by 1876 had resulted in some 250,000 deaths. But at that stage drought and famine intervened, affecting large areas of the province and giving the epidemic fresh vigour: a further 360,000 cholera deaths were recorded in 1877. Although the famine reached its peak in September 1877, cholera mortality had already begun to decline in February of that year. None the less, deaths from cholera were greatest where famine was most severe. In the ten worst-hit districts in 1877 cholera deaths reached 18 per 1,000, whereas in the six districts least affected there were only 4.6 per 1,000.²⁹

Although hot dry conditions were inimical to the survival of the

²⁶ *Annual Report of the Sanitary Commissioner for Bombay, 1877* (Bombay, 1878), p. 170; *Annual Report of the Sanitary Commissioner for Madras, 1877*, p. lxiii.

²⁷ *Report on the Census of the Madras Presidency, 1871* (Madras, 1874), p. 2.

²⁸ R. Lardinois, "Une conjoncture de crise démographique en Inde du sud au XIX^e siècle: la famine de 1876-1878", *Population*, ii (1982), pp. 377-9; M. B. McAlpin, *Subject to Famine: Food Crises and Economic Change in Western India, 1860-1920* (Princeton, 1983), ch. 3; A. K. Sen, "Famine Mortality: A Study of the Bengal Famine of 1943", in E. J. Hobsbawm *et al.* (eds.), *Peasants in History* (Calcutta, 1980), pp. 204, 216.

²⁹ *Review of the Madras Famine, 1876-1878* (Madras, 1881), p. 125; *Annual Report of the Sanitary Commissioner for Madras, 1880* (Madras, 1881), p. 12.

generally water-borne cholera bacillus, dearth and drought drove villagers to frequent wells, tanks (reservoirs) and stagnant pools, which quickly became contaminated with cholera. Chronic malnutrition weakened resistance to the disease, as did the desperate but debilitating search for food and relief, and the consumption of roots, leaves and other substitute foods that caused sickness and diarrhoea. The mobility of the famine-struck and their concentration in relief camps or in towns and cities facilitated the spread of the disease among those least able to resist it. The number of deaths attributed to cholera during famine years may have been exaggerated by the government's reluctance to ascribe any deaths to starvation as such and by the lay observer's difficulty in distinguishing cholera from "famine diarrhoea". But there can be no doubt that it was at such times and in such conditions that the rural poor were most vulnerable to the disease.³⁰

IV

It has become so customary to apply military metaphors to epidemic diseases — to speak of "attacks", "invasions" and "devastation", of the "resistance" to them, and their "conquest" by medical science — that one could easily overlook the literal correspondence between cholera and military power in early colonial India. The first epidemic of the nineteenth century came hard on the heels of the most active and decisive phase of British expansionism. When the cholera erupted in 1817 the English East India Company had held control of Bengal for sixty years, but only in the previous twenty had its territorial power been extended into large areas of southern and northern India. The arrival of the epidemic in western India in July-August 1818 coincided with the final defeat of Maratha power and thus, the Sikhs of the Punjab apart, with the extinction of sustained military opposition to British domination. The connection between cholera and conquest was not fortuitous. Troops were particularly susceptible to a disease that flourished in the insanitary and crowded conditions of barracks and encampments; and they, in turn, were among the principal agencies by which the disease was disseminated throughout India. Large-scale troop movements across northern India from

³⁰ Even in non-famine times, social discrimination against low-caste and Untouchable labourers often obliged them to drink from readily contaminated water sources, such as irrigation channels: S. Swaroop, "Epidemiology of Cholera in the Madras Presidency", *Indian Jl. Medical Research*, xxxix (1951), pp. 191-3.

cholera's homeland in Bengal in 1817-18 facilitated the epidemic invasion of the rest of India. There was a similar correlation forty years later during the Mutiny campaigns of 1857-8. To speak of the "invasion" of cholera was thus more than a verbal analogy.

In the European perception, one of the most striking incidents of the 1817-21 epidemic was the outbreak of cholera among troops of Lord Hastings's army, assembled in Bundelkhand in northern central India in November 1817 for a campaign against the Pindaris and Marathas. In his account of this episode Jameson represented cholera as an enemy force advancing to attack a defenceless army. The troops were ordered to retire to a healthier site, but the mortality continued with 764 soldiers dying in a single week. "[H]undreds dropt down", wrote Jameson, "during every subsequent day's advance, and covered the roads with dead and dying; the ground of encampments and line of march, presented the appearance of a field of battle, and of the track of an army retreating under every circumstance of discomfiture and distress".³¹

While there were comparatively few fatalities among British officers, the disease continued for the next fifty years an intermittent guerilla warfare against the common British soldier.³² For a colonial regime so heavily dependent, especially after the Mutiny, on European soldiers, the disease constituted a serious military and political problem. Various measures were adopted — such as the rapid evacuation of an infected site — but to little effect. Between 1818 and 1854 more than 8,500 British soldiers died of cholera, and between 1859 and 1867 a third of all deaths among British troops in India were due to the disease.³³ The 1861 epidemic caused particularly heavy mortality. At Mian Mir near Lahore, 880 out of 2,452 soldiers and their wives and children were attacked by cholera and 535 died.³⁴ Indian troops suffered far fewer casualties. European officers were commended for showing the same bravery in the face of the epidemic as they had against the recent mutineers and rebels: their duty to maintain the morale of the "panic-stricken" soldiers was also likened to their role "upon the field of battle".³⁵ The severity of the epidemic

³¹ Jameson, *Report on the Epidemick Cholera Morbus*, pp. 15-17.

³² For higher mortality among British soldiers than their officers, see J. Ewart, *A Digest of the Vital Statistics of the European and Native Armies in India* (London, 1859), pp. 2-3, 147-63.

³³ *Report of the Commissioners Appointed to Inquire into the Cholera Epidemic of 1861 in Northern India* (Calcutta, 1862), p. 254; J. L. Bryden, *Epidemic Cholera in the Bengal Presidency* (Calcutta, 1869), p. 2.

³⁴ *Report on the Cholera Epidemic of 1861*, p. 6.

³⁵ *Ibid.*, p. 63.

and the threat it posed to British rule forced the government to hold the first thorough inquiry into the disease for forty years, and this was quickly followed by a parliamentary commission into the sanitary state of the army in India.³⁶ Through improvements in sanitation and water-supply, cholera gradually ceased to be a major cause of troop mortality. In Bengal cholera deaths declined from 9.24 per 1,000 British soldiers in 1860-9 to 2.49 in 1880-3.³⁷ The defeat of cholera was a significant factor in the consolidation of British power in India.

Indians placed their own interpretation upon the correlation between cholera and conquest. The episode of Hastings's cholera-stricken army remained in local memory, too, but bore a quite different connotation. Villagers believed that the epidemic had begun when, despite a brahmin's remonstrances, cattle were slaughtered to feed British soldiers camped in a grove sacred to Hurdoul Lal, son of a former raja.³⁸ In the indigenous perception the British were guilty of violating both the sacred grove and Hindu prohibitions on the killing of cattle and eating of beef. The epidemic was accordingly interpreted as a sign of the gods' displeasure, and the offended Hurdoul Lal was thereafter worshipped and propitiated over a wide area of northern India whenever cholera threatened.³⁹ This was not an isolated example. Villagers at Cunnatore in the Nellore district of Madras traced the epidemic to the arrival of low-caste soldiers and camp-followers who polluted (perceptually in a ritual sense, but epidemiologically in reality) certain sacred tanks nearby.⁴⁰ The inhabitants of Ongole in the same district attributed cholera and smallpox to the residence there of the raja of Gumsur, taken captive by the British during the Gumsur war of 1835. As a prisoner, the raja was unable to make his usual devotional offerings to the goddess Mahalakshmi, who vented her ire not only on the British soldiers but also on the people of Ongole.⁴¹ Moreau de Jonnès similarly reported that Indians attributed the 1817-21 epidemic to the resentment of the idol "Yagatha Ummah" who had taken offence at English rule over Hindustan.⁴²

³⁶ *East India: Sanitary State of the Army*, Parliamentary Papers, 1863 [3184], xix.

³⁷ J. M. Cunningham, *Cholera: What Can the State Do to Prevent It?* (Calcutta, 1884), p. 33.

³⁸ W. H. Sleeman, *Rambles and Recollections of an Indian Official*, 2 vols. (London, 1844), i, pp. 211-12.

³⁹ *Ibid.*, p. 212; W. Crooke, *The Popular Religion and Folklore of Northern India*, 2 vols., 2nd edn. (London, 1896; repr. Delhi, 1968), i, pp. 138-40.

⁴⁰ Scot, *Report on the Epidemic Cholera*, p. 237.

⁴¹ E. R. Clough, *While Sewing Sandals* (London, 1899), pp. 90-4.

⁴² Moreau, *Rapport sur le choléra-morbus*, p. 114. For other interpretations linking

(cont. on p. 129)

Behind these various explanations of the origins of cholera there lurks a shared belief that the British were in some way responsible, whether through the direct violation of Hindu taboos or indirectly through the disruptive effects of their military intervention on the Hindu cosmos. But significantly the consequences of divine displeasure were seen to fall upon the indigenous population more than upon the conquering foreigners. Cholera constituted a punishment of Hindus rather than retribution against the British.

The identification of epidemic disease with divine wrath was not, of course, a peculiarly Indian or Hindu phenomenon: it had its counterpart in European and North American responses to cholera in the 1830s and 1840s. But in India it took the distinctive form of belief in disease deities, usually goddesses. Hindu society did not regard all diseases alike: some were seen as the consequence of personal sins or the violation of religious taboos; others as the result of sorcery or possession by malevolent spirits. But epidemic diseases, because of their scale and nature and the general ineffectiveness of conventional medicine against them, were readily identified with the wrath of gods and cosmic disharmony. Disease goddesses varied widely in name and function from one part of India to another. Many were specific to a particular disease or ailment. In Bengal and much of the north the principal such deity was Sitala, goddess of smallpox, while in southern India Mariyamma combined the role of disease deity with guarding the village community and rain-making. As goddesses, Sitala and Mariyamma embodied the Hindu principle of *shakti*, or female energy, identified both with the protective and generative powers of a mother goddess and with a destructive force which needed to be placated to prevent it causing mortals harm. Villagers interpreted epidemics as the displeasure or "sport" of the deity and adopted religious (rather than solely medical) responses to assuage her anger or humour her caprice. The uncertainties of rural life, of droughts, crop failures and epidemics, thus found representation in the idea of an unpredictable, but not entirely unresponsive, deity.⁴³ The worship of Sitala was timed to coincide with the onset of the smallpox season. When the disease struck, it was thought of

(n. 42 cont.)

cholera to British intervention, see R. E. Enthoven, *The Folklore of Bombay* (Oxford, 1924), p. 258. As this and other sources make clear, the advent of British rule was only one, if a particularly common, explanation offered for the cholera epidemics.

⁴³ L. A. Babb, *The Divine Hierarchy: Popular Hinduism in Central India* (New York, 1975), pp. 126-32, 227-9; S. Wadley, "Sitala: The Cool One", *Asian Folklore Studies*, xxxix (1980), pp. 33-62.

as the goddess taking up residence within the human body, and the person affected was treated with all the reverence and indulgence due to the goddess herself. Smallpox inoculation, widely practised in nineteenth-century India, was likewise performed within a context of religious ritual, as an invitation to Sitala to take protective possession of the devotee.⁴⁴

Cholera, by contrast, had not been extensively ritualized by the early nineteenth century.⁴⁵ There are several possible explanations for this. The symptoms of cholera were less distinctive than the pockmarks and blindness that were the common legacy of smallpox. There was no equivalent technique of inoculation for which to invoke a goddess's blessing. And, perhaps most significantly, cholera, though certainly present, appears not to have been as widespread and as destructive as it became after 1817. Only in deltaic Bengal, the homeland of cholera, is there known to have been worship of a specific cholera deity, called Ola Bibi ("the lady of the flux") by Muslims and Olai-Candi by Hindus. Before 1817 the goddess enjoyed far less popular devotion than Sitala, but she was thereafter extensively propitiated during the season when cholera was most prevalent.⁴⁶ In the absence of an established cholera deity over most of India, initial responses to the epidemic were very varied. In Bundelkhand, as we have seen, Hurdoul Lal was pressed into service as a male cholera deity. Elsewhere cholera was seen as a demon to be driven away with flashing swords and noisy processions, or as a consequence of sorcery, on suspicion of which individuals were attacked, mutilated and killed.⁴⁷ But the dominant response was to represent cholera either as a new manifestation of the powers of an existing deity like Mariamma, Kali or Candi, or as an entirely new deity, known only by

⁴⁴ P. R. Greenough, "Variolation and Vaccination in South Asia, c. 1700-1865", *Social Science and Medicine*, xiv (1980), pp. 345-7; *Gazetteer of the Bombay Presidency: XVIII, Part 1: Poona* (Bombay, 1885), pp. 224-5.

⁴⁵ R. W. Nicholas, "The Goddess Sitala and Epidemic Smallpox in Bengal", *Jl. Asian Studies*, xli (1981), pp. 21-44, argues that the worship of Sitala grew in popularity in Bengal in the second half of the eighteenth century, at a time when political and social instability favoured the spread of smallpox. The worship of cholera deities half a century later shows a remarkably similar pattern.

⁴⁶ C. Macnamara, *A History of Asiatic Cholera* (London, 1876), pp. 34-6. For the worship of Ola Bibi and Olai-Candi, see S. L. Hora, "Worship of the Deities Ola, Jhola and Bon Bibi in Lower Bengal", *Jl. Asiatic Soc. Bengal*, new ser., xxix (1933), pp. 1-4; G. Basu, *Banglar loukik devata* [Folk Gods of Bengal] (Calcutta, 1963), pp. 25-8, 195-8 (I am indebted to Gautam Bhadra for these references).

⁴⁷ *The Missionary Register for 1820* (London, 1820), pp. 219, 301; Sleeman, *Rambles and Recollections*, i, pp. 215-16; Kennedy, *Notes on the Epidemic Cholera*, pp. xii-xiii.

such descriptive titles as *jari mari* ("sudden sickness") or *kala mari* ("black death").⁴⁸

Belief in disease goddesses gave rise to two related responses. One was the dressing-up of a woman, often a young girl, to represent the goddess and to receive her worship; the other was the use of mediums to voice the goddess's anger and demands. Both acted as vital channels of communication between the deity and the villagers. There are many examples of these mediums and human "goddesses" (or *devis*) in the historical and anthropological literature,⁴⁹ but the 1817-21 epidemic provides some particularly striking illustrations. In January 1818 a Christian missionary in Calcutta reported the appearance of a cholera "goddess" — "an actual avatar or incarnation of Ola Bibi", as he described her — in the suburb of Salkhia, where she sat for two days "in all the state of a Hindu goddess" attended by a young brahmin woman as her "priestess".⁵⁰ Another woman — "declaring herself to be an Avatar of the fiend of pestilence", according to Kennedy — was observed at the town of Sirur near Pune in western India a few months later. She was said to be "almost naked"; her hair was "dishevelled", and her body, clad in "scant apparel" was daubed with red and ochre powders. In one hand she held a drawn sword; in the other a pot containing fire — "the one probably a symbol of destruction, the other of the funeral pile". She was preceded by a band of musicians and followed by a line of empty carts. "[A]s she bounded along", Kennedy reported, "she denounced certain destruction to all who did not immediately acknowledge her divinity; and pointing to the empty carts which followed, proclaimed that they were brought to convey away the corpses of those who rashly persisted in infidelity. No ridicule, no jest, awaited this frantic visitation, but deep distress and general consternation".⁵¹

⁴⁸ J. Macpherson, *Annals of Cholera* (London, 1872), pp. 6, 115; R. Steuart and B. Philipps, *Reports on the Epidemic Cholera* (Bombay, 1819), p. xxvii. Cholera had long been known to Europeans by the no less graphic description *mort-de-chien*: H. Yule and A. C. Burnell, *Hobson-Jobson*, rev. edn. (London, 1985), pp. 586-9.

⁴⁹ Babb, *Divine Hierarchy*, p. 130; M. E. Opler, "The Cultural Definition of Illness in Village India", *Human Organization*, xxii (1963), p. 35; A. R. Beals, "Strategies of Resort to Curers in South India", in C. Leslie (ed.), *Asian Medical Systems: A Comparative Study* (Berkeley, 1976), pp. 195-6; D. Hardiman, *The Coming of the Devi* (forthcoming).

⁵⁰ School of Oriental and African Studies, London, London Missionary Society Archive, Rev. J. Keith, Calcutta, to L.M.S., 1 Jan. 1818.

⁵¹ Kennedy, *Notes on the Epidemic Cholera*, pp. ix-x. Cholera "goddesses" also appeared in northern India in 1860: I.O.R., India Political and Foreign Procs., no. 323, Aug. 1861, judicial commissioner, Awadh, to secretary to chief commissioner, 3 May 1861.

In the colonial view disease goddesses and their human “avatars” were “disgusting” examples of Hindu superstition and fatalism to be contrasted with European rationality and a scientific approach to the causation and treatment of disease. But the popular belief in disease goddesses was a matter of practical concern to the colonial administration, for it feared that their worship, and especially the appearance of *devis* like that described by Kennedy, would increase the panic caused by the epidemic and might assume a political complexion. In Madras the government agreed, with some reluctance, to help finance propitiatory ceremonies, partly in fulfilment of the customary responsibilities of the state in Hindu India, but also, more pragmatically, as a way of allaying popular alarm and discouraging villagers from deserting their fields.⁵² There was a fear, too, that unless the government intervened, its authority might be in jeopardy. At Sirur, where (Kennedy noted) the “detestable delusion” of the “goddess” had had a “serious effect on the feelings of the mob”, the woman was arrested, her followers dispersed and the idea of such “avatars” publicly ridiculed as a “salutary example” to others.⁵³ The Salkhia *devi* was arrested (for “imposture”!) and sentenced by the European magistrate to six months in the House of Correction where, ironically, she contracted cholera but survived.⁵⁴ Quite apart, therefore, from any medical response to the disease itself, the British saw the need for a political response to the popular reactions epidemic cholera had aroused.

V

Other ways in which Indian villagers⁵⁵ sought to humour or placate the cholera deity were also likely to be seen by the British as having a political connotation. Ceremonies in honour of the cholera goddess, held annually or in anticipation of an epidemic, commonly included the ritual sacrifice of a buffalo or goat. The blood of the animal was

⁵² I.O.R., Madras Board of Revenue Procs., 17 Apr., 25 May 1820.

⁵³ Kennedy, *Notes on the Epidemic Cholera*, p. x.

⁵⁴ L.M.S. Archive, Keith to L.M.S., 1 Jan. 1818.

⁵⁵ The ways in which Muslims responded to cholera are less well documented than for Hindus. In areas where Muslims shared many aspects of Hindu culture they joined in propitiatory ceremonies or, as with Ola Bibi in Bengal, had their own disease deities and demons. Like Hindus, Muslims also adopted various devices to ward off epidemics, such as talismanic charms: for handprints on the walls of mosques and houses, see E. Thurston, *Omens and Superstitions of Southern India* (London, 1912), pp. 119-20; and for the posting of extracts from the Koran above doorways, see *Reports on Cholera, 1856*, p. 11.

then sprinkled on rice and offered to the deity before being distributed among villagers or scattered around the boundaries of the village to protect it from the disease.⁵⁶ But during epidemics the offerings or an image of the goddess were taken in procession to the edge of the village to be left there or passed on to the next village. Instead of being sacrificed, buffaloes, goats or chickens were released or handed over to a neighbouring village. It was believed that in this way the goddess would be tempted to leave the vicinity, taking the disease with her, following the offerings until, ideally, they led her to some remote and deserted place.⁵⁷ Occasionally, the "scapegoat" was human, a low-caste or tribal woman, or a prostitute, who was driven out of the village to symbolize the expulsion of the disease from its boundaries.⁵⁸

This practice of transmission was open to a political interpretation, or rather miscognition, for there is no firm evidence of it ever having an overtly political meaning. The most celebrated example was the circulation of chapatis from village to village in northern India on the eve of the Mutiny in 1857. In retrospect, some British commentators saw the chapatis as a conspiratorial message or a call to arms against them. It is virtually certain, however, that the chapatis were intended to pass on the cholera and so confer protection from the epidemic then raging. But, as Ranajit Guha has recently argued, it was possible for the chapatis to serve this specific purpose and at the same time also to give expression to a sense of collective anxiety among villagers at British rule and their anticipation of some greater, impending catastrophe.⁵⁹ After the rebellion, when cholera again prevailed in northern India, new tokens began to circulate in the countryside. In April 1860, for example, officials intercepted a *ghura* (earthenware pot) containing 215 *pice* (small coins), 160 cowrie shells, 27 rings, mostly of base metal, and a little tobacco. The *ghura*'s progress was traced back through nearly ninety villages along the borders of present-day Uttar Pradesh, Madhya Pradesh and Rajasthan before

⁵⁶ F. Fawcett, "On Some Festivals to Village Goddesses", *Jl. Anthropol. Soc. Bombay*, ii (1890), pp. 261-82; H. Whitehead, *The Village Gods of South India*, 2nd edn. (Calcutta, 1921), pp. 38-9.

⁵⁷ Crooke, *Popular Religion and Folklore*, i, pp. 141-3, 166-70; *Gazetteer of the Bombay Presidency: XI, Part 1: Gujarat* (Bombay, 1901), pp. 414-15; W. Francis, *Madras District Gazetteers: Vizagapatam* (Madras, 1907), p. 75.

⁵⁸ Crooke, *Popular Religion and Folklore*, i, p. 170; J. Abbott, *The Keys of Power: A Study of Indian Ritual and Belief* (London, 1932), p. 112; B. S. Haikerwal, *Economic and Social Aspects of Crime in India* (London, 1934), pp. 66-7.

⁵⁹ R. Guha, *Elementary Aspects of Peasant Insurgency in Colonial India* (Delhi, 1983), pp. 238-46.

the trail ran cold.⁶⁰ Officials were eventually satisfied that the pot and its contents had no direct political meaning and were merely an anti-cholera device; but the provincial government directed that such transmissions, even when seemingly innocent, were to be “narrowly watched, and duly reported”.⁶¹

The officials of Thana district in the Bombay Presidency had been similarly concerned in 1818 at the way in which two buffaloes, “painted in an extraordinary manner”, were being driven from village to village. A connection with the current cholera epidemic was recognized, but, coming so soon after the defeat of the Marathas and the establishment of British rule, officials feared that this was “an attempt . . . by some ill-disposed persons to create an alarm in the district regarding the disorder” — that is, the cholera. The district judge and magistrate, believing that the “wicked design” had already made a considerable impression upon the minds of the inhabitants, proposed to impound the animals and auction them “to convince the people of the little real consequence we attach to the imposition”, and to offer 300 rupees for information about its originators.⁶² While agreeing that the buffaloes were probably intended to impress upon villagers that the epidemic was “a visitation of Providence brought on the community for their want of exertion in resisting our power”, the government in Bombay decided that it was best not to take any action which would draw attention to the buffaloes.⁶³

For British officials and Hindu villagers alike, an epidemiological “disorder” could stand for or presage a wider political or cosmological “dis-order”. Because of their severity and their historical conjuncture, the epidemics of 1817-21, 1856-7 and 1860-1 were closely identified by villagers with the “trauma” of conquest and foreign rule. Rituals of disease propitiation seldom, if ever, had a simply anti-British signification. But the political interpretation which British officials placed upon propitiatory devices and transmissions was not entirely misplaced. Indian reactions to cholera were a reminder of the great cultural gulf which divided the colonizers from the colonized and drew attention to the existence of patterns of rural solidarity and lateral communication over which the colonial state had little or no

⁶⁰ I.O.R., North-Western Provinces Judicial Procs., 29 May 1860, magistrate, Agra, to commissioner, 27 Apr. 1860.

⁶¹ *Ibid.*, commissioner, Agra, to secretary, government of North-Western Provinces, 10 May 1860.

⁶² I.O.R., Bombay Public Procs., 29 July 1818, judge and magistrate, Thana, to chief secretary, Bombay, 15 Aug. 1818.

⁶³ *Ibid.*, Minute, 21 Aug. 1818.

control. Although there were sometimes clashes between villages over the unwelcomed dumping of cholera offerings,⁶⁴ more commonly, shared beliefs and fears ensured that offerings and tokens were passed on from one village to another, sometimes for fifty miles or more. It was believed, too, that propitiatory ceremonies would be ineffective unless the entire village community participated in them. For the British, whose own lines of rural communication in India were often singularly deficient and who saw a danger to their own power in local solidarity, these were aspects of indigenous society to be viewed with apprehension and suspicion.

VI

The cholera epidemics of the nineteenth century also highlighted the widening gulf between indigenous and western medicine and the different systems of thought they represented. At the time of the first epidemics there was still a significant congruence between the two. The Hindu Ayurvedic system and its Muslim counterpart, Unani, were grounded in the principle of bodily humours, a harmonious balance between the elements being thought necessary for sound health. Early nineteenth-century European doctors were still partly under the influence of the humoral tradition in western medicine, and many early descriptions of cholera testify to this with their frequent references to bile, phlegm and disorders of the blood. Although the virulence of the early epidemics drove many Indians, especially in the villages, to seek religious rather than medical responses, Hindu *vaid*s and Muslim *hakims* were none the less active in supplying treatment and medicines consonant with their humoral diagnoses. These included purgatives like calomel to rid the body of its "poison", cooling and soothing drinks like rose-water and lime-juice, and embrocations of turpentine and other fluids to relieve the severe cramps that were a common symptom of the disease.⁶⁵

During the 1817-21 epidemic in particular, European physicians took note of these indigenous therapies, sometimes from curiosity or disdain, but often on the chance that they might prove helpful in the treatment of a disease unfamiliar to western medicine. In November 1818, for example, the Madras Medical Board agreed to meet two

⁶⁴ *Reports on Cholera, 1856*, pp. 28-9; Crooke, *Popular Religion and Folklore*, i, p. 141.

⁶⁵ Jameson, *Report on the Epidemic Cholera Morbus*, pp. 243-4; D. B. Smith, *Report on Epidemic Cholera as it Prevailed in the City of Delhi, 1861* (Lahore, 1861), pp. 72-4; H. R. Zimmer, *Hindu Medicine* (Baltimore, 1948), pp. 133 f.

brahmin physicians from Kanchipuram, who had sent a Tamil address to the governor concerning the treatment of cholera. The government felt that there might be some practical lessons to be learnt from the brahmins: the Board was more interested in the possibility of persuading the Indian doctors of the "superior efficacy" of western medicine.⁶⁶ In practice, British doctors borrowed heavily from their Indian counterparts, prescribing similar drugs (most commonly black pepper, calomel, ginger and asafoetida) mixed with opium (which some *vaids* and *hakims* also used), brandy or arrack. By the 1850s these fiery tinctures (perhaps in deference to Indian scruples about alcohol) had given way to "cholera pills" made up of equal portions of opium, black pepper and asafoetida. More than 140,000 of these were made and distributed at Agra alone during the 1856 epidemic, and one official attributed their popularity to the fact that they were known to consist of familiar "bazaar" ingredients.⁶⁷

These putative remedies, Indian as well as European, were not always viewed with favour, especially when they demonstrably failed to check an epidemic and when religious propitiation or flight seemed a more appropriate response. One Bombay judge in May 1820 wrote of the "great repugnance" shown by villagers towards any medical measures except from their own doctors, and a similar preference was observed in northern India in 1856.⁶⁸ Had the bleeding and venesection advocated in many early nineteenth-century European treatises on cholera been extensively employed on Indian patients, the reaction against western medical practice might have been more extreme.⁶⁹ Perhaps because of the continuing overlap between Indian and western medicine, the paucity of European doctors, the lack of an agreed therapy among western practitioners and the absence of any determination to force unwelcomed treatments upon the Indian population, there is little evidence of the kind of suspicion and hostility which marked British intervention against plague in the 1890s and 1900s and which lay behind cholera disturbances in

⁶⁶ I.O.R., Madras Public Procs., 10 Nov. 1818. See also W. Ainslie, *Materia Indica*, 2 vols. (London, 1826), ii, pp. 82, 93, 304; Scot, *Report on the Epidemic Cholera*, pp. 251-9.

⁶⁷ *Reports on Cholera, 1856*, pp. 10-11; J. Murray, *Report on the Attack of Cholera in the Central Prison at Agra, 1856* (Agra, 1856), p. 9.

⁶⁸ I.O.R., Bombay Public Procs., 24 May 1820, judge, South Konkan, to chief secretary, Bombay, 19 May 1820; *Reports on Cholera, 1856*, p. 11.

⁶⁹ Steuart and Philipps, *Reports on the Epidemic Cholera*, p. xxxviii; Scot, *Report on the Epidemic Cholera*, p. 203; cf. N. Howard-Jones, "Cholera Therapy in the Nineteenth Century", *Jl. Hist. Medicine*, xxvii (1972), pp. 373-95.

England in the 1830s.⁷⁰ Hospitalization, rare in the early part of the century, was seldom backed by coercion. In Madras, where the Medical Board set up special temporary hospitals for the treatment of cholera victims in 1819, it was soon found that Indians “evinced a great reluctance to reside in them even for a day”.⁷¹ Apart from revulsion against hospitals as such (a sentiment common enough in Europe at the time), Indians were reacting against the likely violation of caste taboos and religious observances and against the social isolation of a European hospital. The Indian view of disease and its treatment called for family involvement and religious ministrations, not secular segregation.

Even while borrowing from indigenous medical practice, European doctors remained, like the Madras Medical Board, firmly convinced of the superiority of their own methods and medicines. They may have been influenced by the lower incidence of the disease among the European élite (which had little to do with the “superior efficacy” of their medicines). But this conviction was also a translation into medical terms of a wider belief in western superiority which had been growing since the military conquests and annexations of the late eighteenth century. The detailed investigations carried out by British doctors during the 1817-21 epidemic were praised in Europe as models of scientific observation and enquiry,⁷² and many writers consciously saw themselves as contributing to a western tradition of rational medical discourse. They had little interest in entering into a dialogue with indigenous medicine, only in extracting from it whatever might be of use to their own practice. They saw all Indian medicine as innately inferior, confused Ayurveda and Unani with popular Hinduism and folk-medicine, and branded them all irrational and superstitious. The first cholera epidemics coincided with the beginning of the western assault on Indian medicine. Initially a patron of Ayurveda, in the 1830s the East India Company reversed its attitude and, as part of the triumph of “Anglicists” over “Orientalists”, identified itself exclusively with western medicine.⁷³

⁷⁰ I. J. Catanach, “Plague and the Indian Village, 1896-1914”, in P. Robb (ed.), *Rural India: Land, Power and Society under British Rule* (London, 1983), p. 224; Durey, *Return of the Plague*, pp. 18-19, 183-4.

⁷¹ I.O.R., Madras Public Procs., 11 June 1819, Madras Medical Board to Madras government, 31 May 1819.

⁷² Anon., Review of J. Annesley, *Sketches of the Most Prevalent Diseases of India* (London, 1825), *Edinburgh Medical and Surgical Jnl.*, xxv (1826), p. 170.

⁷³ B. Gupta, “Indigenous Medicine in Nineteenth- and Twentieth-Century Bengal”, in Leslie (ed.), *Asian Medical Systems*, pp. 369-70.

During the second half of the nineteenth century, the gap between western and Indian medicine widened dramatically as European medical science made rapid progress and as ideas of sanitation, hygiene and even the germ theory of disease causation became widely disseminated. This had important consequences for racial and social relations in India. By the early twentieth century it had become commonplace for even lay Europeans to sneer at Indian ignorance of sanitation and disease,⁷⁴ while fear of catching “native” diseases was a factor in the increasing social and spatial distance between Europeans and Indians. The Indian bazaar and “native town” became areas particularly to be avoided.⁷⁵ Whether through observation of how the disease spread or through the influence of western ideas of disease and hygiene, middle-class Indians also came to see cholera as a disease of the poor, of the bazaars and bustees. One treatise on cholera, published by a western-trained Bengali doctor in 1906 and addressed to the middle classes, dwelt at length on the dangers of catching the disease from street-traders, sweet-sellers and servants.⁷⁶ But significantly, the author advised the treatment of cholera by homoeopathy, a western importation then growing rapidly in popularity in India, partly because it was felt to be closer to the traditions of Indian medicine than western allopathy.

VII

The Indian origins of cholera and its almost global dissemination from Bengal made the disease a convenient symbol for much that the west feared or despised about a society so different from its own. One of the strongest expressions of this antipathy arose from the epidemiological connection between cholera and Hindu pilgrimage. The source of the disease — the cholera vibrio or comma bacillus — enters the body only through oral induction, most commonly through drinking water contaminated with infected human faeces. In India one of the principal means by which the disease was transmitted was through tanks and watercourses which served both for the provision of drinking-water and for washing and bathing. The immersion of Hindu pilgrims in a sacred tank or river, as happened on a vast human scale at the twelve-yearly festivals, or *kumbh melas*, at Hardwar

⁷⁴ See, for example, J. A. Sharrock, *South Indian Missions* (London, 1910), p. 264.

⁷⁵ J. R. Ackerley, *Hindoo Holiday*, 2nd edn. (Harmondsworth, 1983), p. 81; A. D. King, *Colonial Urban Development* (London, 1976), esp. ch. 5.

⁷⁶ D. N. Ray, *A Treatise on Cholera and Kindred Diseases* (Calcutta, 1906), pp. 43-52.

and Allahabad on the Ganges, and the sipping of the water as part of the ritual of worship and religious purification, provided almost ideal conditions for the rapid transmission of the water-borne vibrio. The spread of the disease was further assisted by pilgrims bringing back Ganges water infected with cholera for relatives and friends to drink. Ironically, water from the Ganges was thought of as especially pure and holy and as having special medicinal and protective powers.

Several nineteenth-century epidemics were traced to Hindu festivals and pilgrimage sites. The Hardwar *kumbh mela* of April 1867, attended at its height by nearly three million pilgrims, was a classic example. Only nineteen pilgrims were treated for cholera at Hardwar itself, but the disease, possibly spread during the mass bathing on 13 April, was soon carried far and wide along the pilgrim routes across much of northern India. The poverty of the pilgrims and the privations they suffered made them almost as vulnerable as the famine-stricken to the effects of the disease; and at numerous tanks and wells along the road they left the fatal disease behind, thereby infecting villagers as well. In the course of the 1867 epidemic nearly a quarter of a million people were attacked, of whom about half died.⁷⁷

Along with Hardwar and Allahabad, the temple of Jagannath at Puri in Orissa and the pilgrimage centres of Nasik and Pandharpur in Maharashtra, Tirupati in Andhra Pradesh and Kanchipuram in Tamilnadu had all been identified by the 1870s as centres from which cholera was periodically spread. With its reliance upon human vectors and a water-borne mode of transmission, cholera was able to exploit a fatal congruence between its own etiology and Hindu modes of worship. The India-wide distribution of Hinduism's sacred places and the periodicity of its major festivals constituted two important determinants of cholera epidemicity in India.

Reports of the 1817-21 epidemic made few connections between cholera and Hindu pilgrimages. They noted, without particular comment, that 20,000 pilgrims died of the disease at the Hardwar *mela* of 1793, and that cholera broke out among pilgrims at Pandharpur in 1818.⁷⁸ But in 1831 Moreau de Jonnès ranked religious pilgrimages along with troop movements as two of the main factors in the spread

⁷⁷ J. Murray, "Report on the Hurdwar Cholera of 1867", in *Report Regarding the Control of Pilgrimages in the Madras Presidency* (Madras, 1868), appendix B; *Report on the Cholera Epidemic of 1867 in Northern India* (Calcutta, 1868). For recent assessments of the role of Hindu pilgrimages in cholera epidemics, see Pollitzer, *Cholera*, pp. 79-81.

⁷⁸ Jameson, *Report on the Epidemick Cholera Morbus*, pp. xvi-xvii; Steuart and Philipps, *Reports on the Epidemic Cholera*, p. 151.

of cholera in India, and cited several examples including Puri in 1821.⁷⁹

The realization of this critical link came at an important historical juncture, for the early epidemics coincided with the opening of British India to Christian missionaries (permitted for the first time in 1813 to preach in Company territories) and their vehement denunciation of Hindu beliefs and practices. The protective stance which the Company had hitherto taken towards Hindu institutions and festivals, and the revenue which it collected from Hindu temples and a tax on their pilgrims, now came under fire from the missionaries as "state sanction to idolatry". They concentrated their attacks on Puri, believing it to be the "chief seat of the Hindoos", and as the place where pilgrims were said to be crushed to death under the wheels of the temple car of the god Jagannath during the annual festival of Rath Jatra. Claudius Buchanan, who attended the 1806 festival, wrote a highly influential account of the town and the event. He described the "squalid and ghastly appearance of the famished pilgrims", many of whom, he said, died in the town from "want and disease", the "offensive effluvia" arising from the town, the "obscene" rituals that accompanied the festival and the "magnitude and horror of the spectacle" as the car with its crudely fashioned "idols" was dragged through the streets by pilgrims. "The characteristics of Moloch's worship are obscenity and blood", he wrote; "How much I wished that the proprietors of India stock could have attended the wheels of Juggernaut, and seen this peculiar source of their revenue".⁸⁰

As a result of the missionaries' campaign, the pilgrim tax was abolished in 1840, though it was not until 1863 that official involvement in the temple administration finally ceased.⁸¹ But missionary propaganda had a profound and enduring effect on the way in which Europeans thought about Hinduism, its sacred places and its connections with disease. Puri epitomized all that was, in western eyes, obscene and degrading about Hindu India. "Probably no spot on earth", wrote one missionary in 1828, "represents, within so small a compass, such complicated scenes of misery, cruelty, and vice, as are presented to view around the temple of Juggernaut".⁸² It was all too easy for medical opinion to be influenced by the prevailing religious and moral view. The international conference which met at

⁷⁹ Moreau, *Rapport sur le choléra-morbus*, pp. 143-5, 179.

⁸⁰ C. Buchanan, *Christian Researches in Asia*, 5th edn. (London, 1812), pp. 22-8.

⁸¹ K. Ingram, *Reformers in India, 1793-1833* (Cambridge, 1956), pp. 35-43.

⁸² *The Missionary Register for 1828* (London, 1828), p. 560.

Constantinople in 1866 to co-ordinate measures for the control of cholera pointed an accusing finger at Puri and other Hindu pilgrimage centres (and at the Muslim pilgrimage to Mecca, seen as the second stage by which the disease travelled to Europe from its Asian homeland). The conference unreservedly declared India's pilgrimages to be "the most powerful of all the causes which conduce to the development and propagation of cholera epidemics".⁸³ Partly in response to this, the government of India instituted enquiries into the sanitary state of Puri, Hardwar and other Hindu centres. The reports produced strong evidence of a close connection between cholera and pilgrimage. But one of the most striking features of these reports is their confusion of medical with moral judgements. In a report of 1868, Dr. David Smith, Bengal's sanitary commissioner, contrasted the pilgrims' view of Puri as a holy city where they would be freed of their worldly sins and the sanitary view that the town was in reality anything but "heaven on earth". Echoing Buchanan, Smith described the car of Jagannath as "tawdry and contemptible" and the image of the god as "terrible in its innate hideousness" and "yet more terrible in its connection with all the surrounding circumstances" of disease and insanitary conditions. "The human mind", he concluded, "can scarcely sink lower than it has done in connection with the appalling degeneration of idol-worship at Pooree".⁸⁴ Such opinions of Hindu belief and practice not infrequently intruded into and helped colour nineteenth-century reports on health and sanitation. The attack on cholera was also an assault on Hinduism, one which was all the more authoritative for its invocation of medical science.

The condemnation of Hindu pilgrimage had a further consequence. It made the pilgrims into a "dangerous class" requiring special measures for their regulation and surveillance. In the existing state of western medical knowledge, it appeared possible to control cholera only by controlling those thought most responsible for transmitting it. If in Europe cholera deepened the propertied classes' fear of the tramping and slum-dwelling poor, by whom the disease might be communicated to the rest of society, so, on an intercontinental scale, Europe dreaded Asia's myriad and mobile poor by whom the disease might be borne on its long march to Europe. Sir William Hunter, a

⁸³ Conférence Sanitaire Internationale, *Rapport sur les questions du programme relatives à l'origine, à l'endémicité, à la transmissibilité et à la propagation du choléra* (Constantinople, 1866), p. 21.

⁸⁴ D. B. Smith, *Report on Pilgrimage to Juggernaut in 1868* (Calcutta, 1868), pt. 2, pp. 5, 8, 12.

civil servant and influential colonial writer, gave a lengthy account of Puri in his history of Orissa published in 1872. He deplored the "homicidal enterprise" which turned Puri into a "magazine of mortality" and left 10,000 Indians a year dead on the pilgrim road to Jagannath. But it was not so much this "yearly sacrifice" and the "superstition of the natives" that incensed Hunter as the thought that the "over-crowded, pest-haunted dens around Jagannath" could become "at any moment the centre from which the disease radiates to the great manufacturing towns of France and England". The pilgrims might "care little for life or death", he wrote, "nor is it possible to protect men against themselves. But such carelessness imperils lives more valuable than their own". Hunter went on: "One of man's most deadly enemies has his lair in this remote corner of Orissa, ever ready to rush out upon the world, to devastate households, to sack cities, and to mark its line of march by a broad black track across three continents". "The squalid army of Jagannath", he concluded, "with its rags and hair and skin freighted with infection, may any year slay thousands of the most talented and beautiful of our age in Vienna, London, or Washington".⁸⁵ Europe's ancient and abiding fear of the "Asiatic hordes" found fresh expression in its hostility to the cholera-carrying pilgrims of Puri. Like the Mongols or the plague before them, the "future incursions of this Asiatic scourge" of cholera threatened death and destruction to a defenceless Europe.⁸⁶

VIII

Such an attitude towards cholera, endorsed by much medical and official opinion in India and by the verdict of several international conferences outside it, might in other circumstances have prepared the way for a wholesale assault on the temples and pilgrimages held responsible for the fatal epidemics. In fact the government of India held back from such a course for several reasons. The very intricacy of the relationship between cholera and Hinduism made the colonial state wary of provoking the kind of religious and political backlash it had experienced in the recent Mutiny and rebellion. Hindu society, it was believed, would not brook the kind of intervention that would be necessary to extirpate cholera from every temple tank and pilgrim camp. While Hunter claimed that only a "total prohibition" on

⁸⁵ W. W. Hunter, *Orissa*, 2 vols. (London, 1872), i, pp. 145, 156, 166-7.

⁸⁶ *Proceedings of the International Sanitary Conference* (Calcutta, 1868), p. 8.

pilgrimage to Puri "would put a stop to the annual massacre", he also held that: "Anything like a general prohibition . . . would be an outrage upon the religious feelings of the people", "an interdict on one of [their] most cherished religious privileges" and "a signal infringement of the tenure by which we hold India". It would be regarded by a hundred and fifty million Indians "as a great national wrong".⁸⁷ David Smith, for all his antipathy to Puri, believed the prohibition of festivals and pilgrimages to be impractical and undesirable: "Better, in my opinion, would it be that India should be devastated by cholera than subjected to religious persecution".⁸⁸ The Madras administration also reached the conclusion that it would not be "politic to take any measures which would have the appearance of the Government preventing pilgrimages", and the government of India reluctantly decided that, for the time being at least, pilgrimages had to be accepted as a "necessary evil".⁸⁹

There were other obstacles to massive state intervention against cholera. One was financial. Such an undertaking would be hugely expensive and the colonial regime was simply not prepared to commit a large part of its income to a cholera-eradication programme. Raising new sources of revenue by, for example, restoring the Puri pilgrim tax was open to administrative as well as religious objections. The colonial authorities believed that quarantines and cordons sanitaires would be difficult to implement and easily evaded, and there was a deep distrust of the Indian police and other subordinates who would be required to enforce such controls. Quarantines, according to J. M. Cunningham, sanitary commissioner to the government of India in 1884, would result in "oppression and hardship to the people . . . exposing them to all the evils which specially arise in a country like this, where the police is so venal and the population is so submissive".⁹⁰

A further substantial obstacle to state interventionism was the continuing uncertainty over the nature of cholera and the mode of its transmission. Until the late 1880s the government of India and a considerable body of medical opinion held to the view that cholera was not contagious and that little would therefore be gained by banning fairs and pilgrimages. Reports on the 1817-21 epidemic

⁸⁷ Hunter, *Orissa*, i, p. 157.

⁸⁸ Smith, *Pilgrimage to Juggernaut*, pt. 4, p. 7.

⁸⁹ *Control of Pilgrimages in the Madras Presidency*, p. 40; National Archives of India, New Delhi, Home (Public) Procs., nos. 163-240, 1 Jan. 1870.

⁹⁰ Cunningham, *Cholera*, p. 24.

had been overwhelmingly (though not unanimously) in favour of environmental causes, whether “atmospheric vicissitudes” such as sudden, heavy rain or an abrupt drop in temperature, or the “miasmas”, “poisonous emissions” and “effluvia” thought to emanate from rotting vegetation, overcrowded habitations and human “filth”.⁹¹ Despite the arguments of Moreau de Jonnès and the contagionist stance of the international cholera conferences, the government of India, strongly influenced by Cunningham, its long-serving sanitary commissioner, clung to the anti-contagionist view. It seemed to fit some of the observed facts better than contagionism, and the wealth of statistics which became available from the mid-1860s appeared to endorse the putative link between cholera epidemics and climatic and geographical factors. J. L. Bryden in 1869 categorically denied that human agency was important in the transmission of the disease, claiming instead that the “geographical distribution of an invading cholera is purely a phenomenon of meteorological significance”. “The highways”, he argued, “by which cholera travels are, in this country, aerial highways, and not routes of human communication”. He identified the chief factors in the spread of the disease as “the special physical geography of Hindustan” and the nature of its weather patterns, especially the monsoons.⁹² J. M. Cunningham, H. W. Bellew, T. R. Lewis and D. D. Cunningham (the last two constituting a special commission set up by the government of India in the 1870s to investigate the causes of cholera) all produced statistical data to show that human agency alone could not explain the spread and periodicity of the disease.⁹³ It was left to an outsider, Robert Koch, to make the crucial discovery of the cholera vibrio in a Calcutta tank, though subsequent medical research, while accepting Koch’s findings, showed the importance of climatic and environmental factors in cholera epidemicity.⁹⁴ The tenacity with

⁹¹ Jameson, *Report on the Epidemic Cholera Morbus*, p. 27; A. T. Christie, *Observations on the Nature and Treatment of Cholera* (Edinburgh, 1828), p. 97; F. Corbyn, *A Treatise on the Epidemic Cholera* (Calcutta, 1832), p. 110; C. Searle, *Cholera* (London, 1831), pp. 6-9.

⁹² Bryden, *Epidemic Cholera in the Bengal Presidency*, pp. 91-2, 243.

⁹³ J. M. Cunningham, *Report on the Cholera Epidemic of 1879 in Northern India* (n.p., ?1880); H. W. Bellew, *The History of Cholera from 1862 to 1881* (London, 1885); T. R. Lewis and D. D. Cunningham, *Cholera in Relation to Certain Physical Phenomena* (Calcutta, 1878). For further discussion of the anti-contagionist viewpoint and its influence on India, see E. H. Ackerknecht, “Anticontagionism between 1821 and 1867”, *Bull. Hist. Medicine*, xxii (1948), pp. 562-93; I. Klein, “Cholera Therapy and Treatment in Nineteenth-Century India”, *Jl. Indian Hist.*, lviii (1980), pp. 39-40.

⁹⁴ *Annual Report of the Sanitary Commissioner for Madras, 1893* (Madras, 1894), pp. 61-2, 73-8; *Annual Report of the Public Health Commissioner with the Government of India, 1928* (Calcutta, 1931), i, p. 59.

which many British doctors in India clung to anti-contagionist views, long after they had become unpopular in Europe, was indicative of an underlying belief that India was as distinct epidemiologically as it was culturally, and therefore any disease originating there must arise from some idiosyncrasy in its climate or geography. In this emphasis upon the peculiarities of India, the environmentalists were in curious accord with those contagionists who blamed the pilgrimages to Hardwar and Puri. Somehow or other the climate, the people, the land of India were to blame.

IX

In India, no less than in Britain, anti-contagionism did not necessarily imply inertia on the part of the medical profession and the state. Cunningham and his associates declared themselves to be as much in favour of good sanitation and clean drinking-water as their contagionist opponents. But, taken along with the financial and political constraints discussed earlier, anti-contagionism did strengthen the state's disinclination to treat cholera as an urgent problem and its preference for cautious, piecemeal intervention.

The persistence of cholera was one factor in prompting the government of India in 1864 to appoint provincial sanitary commissioners. Fifty years after the 1817 epidemic the government (since 1858 the crown and no longer the Company) found itself still in considerable ignorance of the scale of cholera mortality. The commissioners prepared detailed reports on local health and sanitation, but these merely revealed the enormous size of the problem, not the means by which it might be tackled. Advisory rather than executive officers, with few funds or subordinates of their own, the commissioners did the best they could to press sewerage schemes and water projects on the provincial authorities and to see that festival sites and temple towns were cleaned and sanitized.

By the 1890s, as contagionism finally became accepted and the state began to recognize a greater responsibility for the health of its subjects, medical officers and officials edged towards a more interventionist policy. In April 1892 the government of the North-Western Provinces took the bold step of banning the Hardwar *kumbh mela* when cholera broke out: 200,000 pilgrims were rapidly dispersed or prevented from reaching the town. No actual resistance was reported, but anti-British propagandists tried to make political capital out of the episode. Lord Roberts, commander-in-chief of the Indian

army, later wrote of the stopping of the Hardwar *mela*: "Few acts have been more keenly resented . . . It was looked upon by the Natives as a distinct blow aimed at their religion".⁹⁵ In 1906 the medical authorities at Nasik attempted to clean out and disinfect the *kunds* or sacred pools in the River Godavari in which pilgrims bathed and which had been identified as a source of cholera epidemics. No sooner had the work begun than a "swarm of priests and other Brahmins appeared on the scene and drove away the workmen, refusing to allow any interference with the sacred spot and the attempt had to be given up".⁹⁶ Two years later, however, after another cholera outbreak, the *kunds* were successfully cleaned without priestly opposition. In 1908 pilgrims arriving for the Sinhast festival were inspected on arrival at Nasik and cholera suspects sent to a special contagious-diseases hospital.⁹⁷ Similar measures were gradually being introduced at other pilgrimage centres as well; as were regulations to control overcrowded and insanitary lodging-houses. But part of the problem was that towns like Puri, Nasik and Pandharpur had only a small resident population and too little income to finance costly sanitation and water schemes. Although several such places were made into municipalities expressly for this purpose, they often had to turn to a reluctant provincial administration to finance the necessary works. Municipal reform was less of a solution than it had been in combating cholera in Britain.

Improving medical technology had at first only a limited impact on cholera mortality and state attitudes towards the disease. Shortly before the First World War patients began to be injected with saline solutions to replace the massive loss of body fluids caused by the disease. This greatly reduced mortality among hospitalized patients, but was of little use in saving the lives of the great mass of cholera victims. In the 1890s W. M. Haffkine pioneered an anti-cholera vaccine, which he tried out experimentally in India in 1894-5, but the government of India was less than enthusiastic, partly from reservations about its effectiveness, but also from fear of the public reaction inoculations might provoke. Before 1914 it was mainly confined to such select groups as British soldiers and tea-estate

⁹⁵ *Annual Report of the Sanitary Commissioner of the North-Western Provinces and Oudh, 1892* (Allahabad, 1893), p. 29; Lord Roberts, *Forty-One Years in India*, 2 vols. (London, 1897), i, p. 443.

⁹⁶ *Annual Report of the Sanitary Commissioner for Bombay, 1906* (Bombay, 1907), p. 8.

⁹⁷ *Annual Report of the Sanitary Commissioner for Bombay, 1908* (Bombay, 1909), p. 10.

workers, for whom special protection was thought necessary or worthwhile.⁹⁸ As late as 1930 the government rejected the suggestion that compulsory inoculation be used on pilgrims gathering for the Allahabad *kumbh mela*. The principal objection was political. The British, currently locked in conflict with the Congress Party over its civil disobedience campaign, feared that any attempt to introduce compulsory inoculation at that stage would be “deeply resented if not violently resisted” and “entailed risks of an explosion in an already surcharged political atmosphere”.⁹⁹

The colonial authorities’ cautious intervention against cholera stood in apparent contrast to their swift and drastic action against the plague epidemic which began in Bombay in September 1896. By that date contagionism was firmly in control of medical policy in India: there were none of the doubts that beset the earlier responses to cholera. Plague was identified as an invading, not a native, disease, probably arriving by sea from Hong Kong, and it threatened the commercial life of India’s second-largest port and manufacturing centre. The official reaction was prompt as well as vigorous. Pilgrimages and fairs were stopped; travellers by road and rail were examined for signs of the plague. Compulsory hospitalization was introduced, clothing and bedding was fumigated or burned, and suspected dwellings evacuated or broken open to improve ventilation. Mass, but voluntary, inoculation became a central feature of the anti-plague campaign. But it was as much the insensitivity to religious and social values as the nature of the plague measures themselves which provoked public opposition. Beginning with a riot on the streets of Bombay in late October 1896 and an attack on one of the city’s hospitals, disturbances and protest meetings continued intermittently in India for several years. In June 1897 W. C. Rand, the officer in charge of plague measures in Pune and the man held personally responsible for the severity of the local anti-plague regime, was assassinated leaving the governor’s residence at Ganeshkind.¹⁰⁰ Quarantines and searches carried out by low-paid police and medical subordinates had exactly the adverse effect Cunningham had warned against a dozen years earlier. Moreover the

⁹⁸ W. M. Haffkine, *Anti-Cholera Inoculation* (Calcutta, 1895); A. Davidson, “Results of Haffkine’s Anticholera Inoculations in India”, *Janus*, i (1896), pp. 325-6.

⁹⁹ *Annual Report of the Public Health Commissioner with the Government of India, 1930* (Calcutta, 1932), i, p. 91.

¹⁰⁰ M. E. Couchman, *Account of the Plague Administration in the Bombay Presidency* (Bombay, 1897); Catanach, “Plague and the Indian Village”; D. Arnold, “Touching the Body: Perspectives on the Indian Plague, 1896-1900”, in R. Guha (ed.), *Subaltern Studies* (forthcoming).

epidemic coincided with growing nationalist opposition to British rule, giving fresh impetus to criticism of colonial arrogance and administrative disregard for Indian sentiment. In short, anti-plague measures generated precisely the kind of backlash which the state's cholera policy had long sought to avoid.

As early as January 1897 the secretary of state for India, Lord George Hamilton, observed to the viceroy, Lord Elgin, that "it is on questions of this kind, where Western and Eastern ideas come in collision, and where modern scientific methods conflict with Oriental prejudice and tradition, that the real difficulties of government in India arise".¹⁰¹ Nearly three years later Lord Curzon, Elgin's successor as viceroy, reflected that in its treatment of plague the government had "almost everywhere . . . begun wrong". It had all been "science, and compulsion, and evacuation at the point of the bayonet". But, Curzon continued, "Wisdom has since been learned. You cannot do this sort of thing with large aggregates of Asiatics".¹⁰²

The strength of public reaction against the anti-plague measures initially discouraged the authorities from attempting a similar campaign against cholera, though, as we have seen, not much urgency was felt anyway about a disease which, by 1900, the British had lived with in India for more than eighty years. Hamilton and Curzon were, however, too hasty in drawing their crude contrast between western science and progress on the one hand and "Oriental prejudice and tradition" on the other. The latter could all too easily serve as an excuse for administrative inertia or for not attempting to understand the true nature of Indian opposition. The middle classes expressed disapproval of the way in which anti-plague measures were enforced, but not necessarily of the measures as such. Where segregation, hospitalization and inoculation were carried out with tact and sensitivity to local feelings they met with considerable success, and this in the longer term may have lowered resistance to other western medical and sanitary measures, especially smallpox vaccination and cholera inoculation. There was, moreover, a compatibility between western medicine and folk-beliefs of which officials in Curzon's day were unaware or incapable of grasping. Indian villagers could continue to propitiate Sitla or Mariyamma and attribute the decline in cholera or smallpox mortality to divine benevolence, while at the same time accepting, even seeking, western medical aid.¹⁰³

¹⁰¹ Quoted in S. A. Wolpert, *Tilak and Gokhale: Revolution and Reform in the Making of Modern India* (Berkeley, 1962), p. 83.

¹⁰² *Ibid.*, p. 122.

¹⁰³ Beales, "Strategies of Resort to Curers", pp. 184-200; A. Ayrookuzhiel, "An
(cont. on p. 149)

During the 1920s and 1930s both public and administrative attitudes underwent substantial change. Despite the effects of the Depression, the authorities showed a new willingness to fund mass inoculation against cholera as well as plague. One factor in this was the transference of responsibility for medical expenditure to Indian ministers in the provincial legislatures after 1920, and the concern for public health shown by Indian politicians and administrators in the inter-war period. The alleged fatalism and hostility of the people was no longer seen as an argument for state abstention. Voluntary inoculation against cholera became a standard precautionary measure at fairs and festivals during the 1930s and compulsory inoculation for pilgrims, first introduced at Pandharpur in 1936, was favourably endorsed by an all-India committee in 1939, though it did not become an established practice until after Independence. The number of cholera inoculations rose from only 1.5 million in 1932 to nearly 7 million in 1935 and 10.8 million in 1938, and there was a corresponding decline in the number of fatal cholera cases from 337,000 in 1930 to 97,566 in 1939.¹⁰⁴

The reasons for the decline in cholera mortality from the 1920s onwards can, as yet, only be conjectured. It would be hard to argue, as has been done in the context of eighteenth- and nineteenth-century Europe, or of south Asia since 1947, that declining epidemic mortality was due to an improvement in living standards. Many scholars would suggest that the reverse was the case and that the material conditions of the mass of the population were actually declining during this period. Famine, however, was largely absent from India between 1920 and 1943 and, in view of the connection between famine and cholera, this may have been a significant factor in the disease's slow decline. The resurgence in cholera associated with the Bengal famine of 1943-4 appears to support this line of argument.

It is also possible that the strain of cholera which burst on India with such virulence in 1817 had, a century later, lost some of its potency or, even without medical intervention, was encountering greater human resistance. But it would be foolish to disregard the consequences of sanitary and medical measures from the 1860s onwards. Although the progress of sanitation and public-health schemes

(n. 103 cont.)

Enquiry into the Idea of God and Pattern of Worship in a South Indian Village", *Religion and Society*, xxii (1975), pp. 11-12.

¹⁰⁴ Central Advisory Board of Health, *Report of the Sub-Committee Appointed to Examine the Possibility of Introducing a System of Compulsory Inoculation of Pilgrims against Cholera*, 1939 (Simla, 1940), p. 3; Pollitzer, *Cholera*, p. 58.

was slow and faltering, they are likely to have made some contribution to declining mortality. This was evident in the major cities from the late nineteenth century, and subsequently in the smaller towns; the villages had mainly to wait until after 1947. Although medical opinion is now sceptical about the effectiveness of cholera inoculation, its use as a precautionary measure during epidemics or at crowded fairs and festivals seems to have played a valuable part in reducing the heavy mortality formerly associated with cholera epidemics in India.

X

Although tens of millions of people died of cholera in India during the nineteenth and early twentieth centuries, it did not provoke the kinds of governmental and public reactions associated with its invasions of nineteenth-century Europe and North America. One can explain this in several ways. The relative unfamiliarity of the disease and the scale of its mortality caused widespread alarm and terror in India during the early epidemics, but, in the absence of any substantial state or medical intervention (such as aroused hostility in Europe in the 1830s), popular alarm was able to find expression through culturally appropriate rites and rituals, and to dissipate itself through religious propitiation and flight. Although the 1817-21 epidemic in particular was widely identified with the British occupation of India, it was absorbed within a broader "trauma of conquest" and did not occasion direct conflict with the colonial regime. After 1821 cholera epidemics became all too familiar in India and in consequence lost something of their initial horror. However, the sense of epidemic cholera as part of a broader catastrophe or cosmic upheaval from time to time recurred, especially when cholera coincided with a severe famine or with political unrest. Like rural India's other periodic calamities, cholera was understood and accommodated within an existing and adaptive cultural tradition, its impact internalized and ritualized.

The colonial regime was caught in a paradox of its own. It saw many dangers in epidemic cholera and yet was slow to respond to the threat it posed to the lives of its Indian subjects. British administrators were apprehensive that the alarm generated by the disease might be turned against the colonial order or spark popular resistance to foreign rule. This fear persisted into the 1930s. The disease was also identified with much that Europe found incomprehensible, menacing or repugnant about Hindu India, but the actual

response of the colonial state was cautious, even dilatory. Intervention was promptest when the lives of British soldiers or residents were at risk. Against the possibility of broader intervention, the state weighed (and generally found weightier) considerations of financial constraint and political expediency, of what was necessary and "politic" for the European rulers of an "Asiatic" empire. By its inertia and reluctance to tackle the problems of epidemic disease, the colonial state avoided the kind of confrontations Europe experienced in the 1830s and which accompanied the plague epidemic of the 1890s. When, after 1920, the state began to channel more resources into anti-cholera measures, it did not encounter the popular hostility long anticipated; and only then, with improved medical technology at its disposal and with famine in abeyance, did cholera mortality substantially decline.

Like any other disease, cholera has in itself no meaning: it is only a micro-organism. It acquires meaning and significance from its human context, from the ways in which it infiltrates the lives of the people, from the reactions it provokes, and from the manner in which it gives expression to cultural and political values. With the possible exception of smallpox, no other disease in India was endowed with greater meaning by both rulers and ruled, and more dramatically illuminated the depth, the complexity and the changing configuration of the colonial divide.

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